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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,416	01/26/2005	Tadashi Ishida	018765-204	5645
21839 7590 08/01/2007 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			EXAMINER SHEWAREGED, BETELHEM	
			ART UNIT 1774	PAPER NUMBER
			MAIL DATE 08/01/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/522,416

Applicant(s)

ISHIDA ET AL.

Examiner

Betelhem Shewareged

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant's response along with the Request for Continued Examination (RCE) filed on 05/29/2007 has been fully considered. Claim 1 is amended, claim 3 is canceled, and claims 1, 2 and 4-6 are pending.

### ***Claim Objections***

2. Claim 4 is objected to because of the following informalities: The claim is dependent upon canceled claim 3. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Galleguillos et al. (US 6,361,768 B1).

5. Galleguillos discloses an ampholytic copolymer having at least one anionic functional group and at least one cationic functional group (col. 4, line 36). The copolymer has a glass transition temperature of above 50 degree C, and is in a form of a fine powder with submicron particle size (abstract). Submicron particle size is a particle size of less than 1 um, which includes the claimed particle size. The copolymer can be used for paper coating (col. 19, line 2).

***Response to Amendment***

6. Applicant had submitted a Declaration to show that the particle size of 1-500nm is not unexpected result. However, the claimed particle size of 1-500nm is taught by the prior art. The prior art teaches particle size with submicron particle size (abstract). Submicron includes any size less than a micron, and less than a micron includes 1-500nm.

7. Applicant argued that while the Examiner has asserted that the present rejection is not based on the doctrine of inherency, the Examiner's rationale clearly relies on an alleged inherent disclosure by *Galleguillos et al* of partially dissolved or undissolved particles. This argument is not persuasive for the following reason. The above rejection is not based on the doctrine of inherency or obviousness. In this case rejection based on the doctrine of inherency or obviousness is not necessary because the claimed particle size of 1-500nm is taught by the prior art. The prior art teaches particle size with submicron particle size (abstract). Submicron includes any size less than a micron, and less than a micron includes 1-500nm. Examiner's interpretation of a prior art does not require a rejection to be based on the doctrine of inherency. Furthermore, the copolymer of the prior art is in particle form (see at least col. 7, lines 20-24; col. 12, lines 47-54; col. 13, lines 1-6 and 60-65).

8. For the above reasons claims 1, 2 and 4-6 stand rejected.

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**Conclusion**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 571-272-1529. The examiner can normally be reached on MAX FLEX.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BS  
July 27, 2007.

  
BETELHEM SHEWAREGED  
PRIMARY EXAMINER